

## SM100 series

100W single Output Switching Power Supply





#### Features:

- Universal AC input / Full range
- Withstand 300VAC surge input for 5 second
- No load power consumption < 0.3W •
- Miniature size and 1U Low profile •
- High operating temperature up to 70 °C Protections: Short circuit /Over load /Over voltage
- Cooling by free air convection Refer to IEC/EN 60335-1(PD3) and IEC/EN61558-1, 2,-16 For household appliances
- Operating altitude up to 5000 meters
- Withstand 5G vibration test
- High efficiency, long life and high reliability
- LED indicator for power on .
- Over voltage category III
- 100% full load burn-in test
- 3 years warranty

Specification									
MODEL		SM100-5	SM100-12	SM00-15	SM100-24	SM100-36	SM100-48		
	VOLTAGE RANGE	85~264Vac 120~370Vdc(refer to 'static characteristic')							
	FREQUENCY RANGE	47~63Hz							
INPUT	EFFICIENCY(Typ.)	85%	87.5%	88.5%	90%	90.5%	91%		
	AC CURRENT(Typ.)	1.9A/115Vac 1.2A/230Vac							
	INRUSH CURRENT(Typ.)	50A/230Vac (cold start)							
	LEAKAGE CURRENT	<0.75mA/240Vac							
	DC VOLTAGE	5V	12V	15V	24V	36V	48V		
	RATED CURRENT	18A	8.5A	7A	4.5A	2.8A	2.3A		
	CURRENT RANGE	0~18A	0~8.5A	0~7A	0~4.5A	0~2.8A	0~2.3A		
	RATED POWER	90W	102W	105W	108W	100.8W	110.4W		
	RIPPLE&NOISE(max.)	100mVp-p	120mVp–p	120mVp-p	150mVp–p	200mVp-p	200mVp–p		
OUTPUT	VOLTAGE ADJ.RANGE	4. 5~5.5V	10.2~13.8V	13.5~18V	21.6~28.8V	32.4~39.6V	43.2~52.8V		
	VOLTAGE TOLERANCE	±2%	±1%	±1%	±1%	±1%	±1%		
	LINE REGULATION	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	LOAD REGULATION	±1%	±0.5%	±0.5%	±0.5%	±0.5%	±0.5%		
	SETUP, RISE TIME	500ms,30ms/230Vac 500ms,30ms/115Vac at full load							
	HOLD UP TIME(Typ.)	55ms/230Vac 10ms/115Vac at full load							
	OVER LOAD	110%~150% rated output power							
PROTECTION		Protection type: Hiccup mode, recovers automatically after fault condition is removed.							
PROTECTION	OVER VOLTAGE	5.75~6.75V	13.8~16.2V	18.8~21.8V	28.8~33.6V	41.4~48.6V	55.2~64.8V		
		Protection type: Shutdown o/p voltage , re-power on to recover							
	WORKING TEMP	-30~+70°C (Refer to output load derating curve)							
	WORKING HUMIDITY	20~90% RH non-condensing							
ENVIRONIMENT	STORAGE TEMP, HUMIDITY	-40~+85°C, 10~95% RH non-condensing							
	TEMP. COEFFICIENT	±0.03%/°C (0~50°C)							
	VIBRATION	10~500Hz, 5G 10n	10~500Hz, 5G 10min./1 cycle, period for 60 min. each along X, Y, Z axes						
	OVER VOLTAGE CATEGORY	III; Refer to UL61558; EN50178; EN60664–1,EN62477–1; altitude up to 2000 meters							

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	Safety standards	Refer to UL62368-1,TUV EN62368-1,CCC GB4943.1,IEC/EN 60335-1(PD3) and IEC/EN61558-1,-2,-16				
		I/P–O/P: 4KVac; 100MΩ / 500Vdc / 25°C / 70%RH				
	Withstand voltage and isolation resistance	I/P-FG: 2KVac; 100MΩ / 5	00Vdc / 25°C / 70%RH			
		O/P=FG: 1.25KVac; 100MΩ / 500Vdc / 25°C / 70%RH				
	Electromagnetic compatibility emission	Parameter	Standard	Test Level / Note		
		Conducted emission BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1		Class B		
		Radiated emission BS EN/EN55032(CISPR32),FCC PART 15 / CISPR22 ,GB9254.1		Class B		
		Harmonic current BS EN/EN61000–3–2,GB17625.1		Class A		
		Voltage flicker	BS EN/EN61000-3-3			
Safety and		BS EN/EN55035	1			
electromagnetic		Parameter	Standard	Test Level /Note		
compatibility		ESD	BS EN/EN61000-4-2	Level 4, 8KV air, Level 2, 4KV contact, criteria A		
		RF field susceptibility	BS EN/EN61000-4-3	Level 3, criteria A		
	Electromagnetic compatibility immunity	EFT bursts	BS EN/EN61000-4-4	Level 3, criteria A		
		Surge susceptibility	BS EN/EN61000-4-5	Level 3, 1KV/L-N, 2KV/L/N-F0 criteria A		
		Conducted susceptibility	BS EN/EN61000-4-6	Level 3, criteria A		
		Magnetic field immunity	BS EN/EN61000-4-8	Level 4, criteria A		
		Voltage dips and interruptions	BS EN/EN61000-4-11	>95% dip 0.5 periods, 30% dip 25 periods , >95% interruptions 250 periods		
	MTBF	≥700Khrs MIL-HDBK-217F	=(25°C)			
OTHERS	DIMENSION	134*97*30mm(L*W*H)				
	PACKING	0.25Kg; 36pcs/ 10Kg/ 0.97CUFT				
NOTE	<ol> <li>Ripple &amp; noise are me</li> <li>Tolerance: includes se</li> <li>Line regulation is mea</li> <li>Load regulation is mea</li> <li>Length of set up time</li> <li>The ambient temperat</li> <li>The power supply is c</li> </ol>	asured at 20MHz of bandwic t up tolerance, line regulation sured from low line to high li asured from 0% to 100% rat is measured at cold first star ure derating of 5°C/1000m is onsidered a component which	ne at rated load.	& 47uF parallel capacitor.		

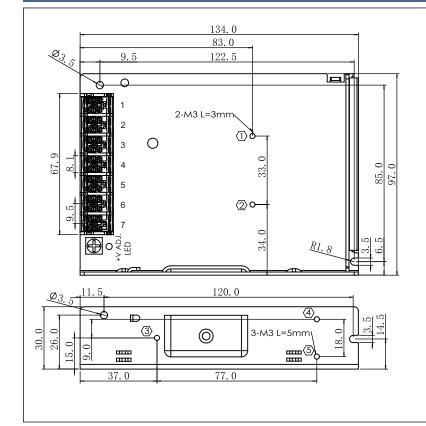
# AIPUPOWER

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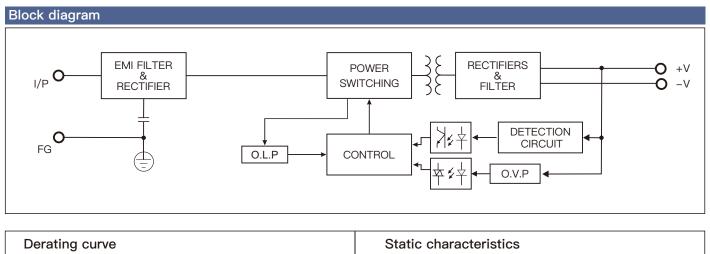
#### Mechanical specification

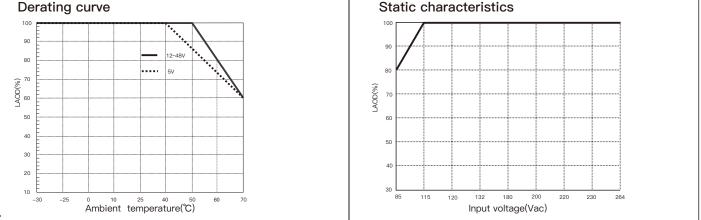


	Customer plate		SMPS Cover			
1	NOTE: Unit: mm ADJ:Output adjustable resistor Torque:M3.5, 0.8N • m Max TOL: ±1.00					
[	Position No.	Screw Size	L max	Torque max	J	

Position No.	Screw Size	L max	Torque max	
1-2	M3	3mm	0.4N • m	
3-5	IVIS	5mm	0.411 • 111	

Screw Terminal				
Pin No.	Assignment	Pin No.	Assignment	
1	AC/L	4,5	DC OUTPUT -	
2	AC/N	6,7	DC OUTPUT +	
3	FG			





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